

CHAPTER 1

HOSPITALIZATION SYSTEM IN A THEATER OF OPERATIONS**1-1. Combat Health Support in a Theater of Operations**

a. A theater of operations (TO) is that portion of an area of war necessary for military operations and for the administration of such operations. The scenario depicts the size of the TO and the US forces to be deployed. The theater is normally divided into a combat zone (CZ) and a communications zone (COMMZ). The CZ begins at the Army/corps rear boundary and extends forward to the extent of the commander's area of influence. The COMMZ begins at the corps rear boundary and extends rearward to include the area(s) needed to provide support to the forces in the CZ. In some instances, the COMMZ may be outside the TO and located in offshore support facilities, third country support bases, or in the continental United States (CONUS).

b. Combat health support (CHS) for the Army component in a TO is the theater Army (TA) commander's responsibility. A TA surgeon is on the TA commander's special staff.

c. Normally, the medical command (MEDCOM) commander or the senior medical commander in the COMMZ functions as the TA surgeon. As the TA surgeon, he provides information, recommendations, and professional medical advice to the general and special staffs. He also maintains current data regarding the status, capabilities, and requirements of the TA's CHS. As the medical staff adviser, he is responsible to the TA commander for staff planning, coordinating, and developing policies for TA forces' CHS.

d. The mission of the Army Medical Department (AMEDD) is to conserve the fighting strength. This mission of CHS is a continuous and integrated function throughout the TO. It extends from the CZ back through the COMMZ and ends in CONUS. Combat health support maximizes the system's ability to maintain presence with the supported soldier, to return injured, sick, and wounded soldiers to duty, and to clear the battlefield of soldiers who cannot return to duty (RTD). Patients are examined, treated, and identified as RTD or nonreturn to duty (NRTD) as far forward as is medically possible. Early identification is performed by the treating primary care provider and continues in the evacuation chain with constant reassessment. Patients requiring evacuation out of the division who are expected to RTD within the theater evacuation policy are evacuated to a corps and/or COMMZ hospital. Those patients classified as NRTD follow the evacuation chain for evacuation out of the theater.

1-2. Echelons of Combat Health Support

The CHS system is organized into five echelons of support. The TO is normally organized into four echelons of support which extend rearward throughout the theater. The fifth echelon is located in CONUS (see Figure 1-1). In the TO, CHS is tailored and phased to enhance patient acquisition, treatment, evacuation, and RTD as far forward as the tactical situation will permit. Hospital resources located at Echelons III and IV will be employed on an area basis to provide the utmost benefit to the maximum number of personnel in the area of operations (AO). Each echelon reflects an increase in capability, with the function of each lower echelon being contained within the capabilities of the higher echelon. Wounded, sick, or injured soldiers will normally be treated, returned to duty, and/or evacuated to CONUS (Echelon V) through the theater's four echelons:

FM 8-10-15

a. Echelon I. Care is provided by designated individuals or elements organic to combat and combat support (CS) units and elements of the area support medical battalion (ASMB). Major emphasis is placed on those measures necessary to stabilize the patient (maintain airway, stop bleeding, prevent shock) and allow for evacuation to the next echelon of care.

(1) *Combat medic.* This is the first individual in the CHS chain who makes medically substantiated decisions based on medical military occupational specialty (MOS)-specific training. The combat medic is supported by first-aid providers in the form of self-aid and buddy aid and the combat lifesaver.

(a) *Self-aid and buddy aid.* The individual soldier is trained to be proficient in a variety of specific first-aid procedures with particular emphasis on lifesaving tasks. This training enables the soldier, or a buddy, to apply immediate care to alleviate a life-threatening situation.

(b) *Combat lifesaver.* Enhanced first-aid training is provided to selected individuals who are called combat lifesavers. These individuals are nonmedical unit members selected by their commander for additional training to be proficient in a variety of first-aid procedures. A minimum of one individual per squad, crew, team, or equivalent-sized unit is trained. All combat units and some CS and combat service support (CSS) units have combat lifesavers. The primary duty of these individuals does not change. The additional duties of combat lifesavers are performed when the tactical situation permits. These individuals provide enhanced first-aid care for injuries prior to treatment by the combat medic. The training is normally provided by medical personnel assigned or attached to the unit. The training program is managed by a senior medical person designated by the commander.

(2) *Treatment squad.* The treatment squad consists of a field surgeon, a physician assistant (PA), two noncommissioned officers (NCOs), and four medical specialists. The personnel are trained and equipped to provide advanced trauma management (ATM) to the battlefield casualty. Advanced trauma management is emergency care designed to resuscitate and stabilize the patient for evacuation to the next echelon of care. Each squad can split into two trauma treatment teams. These squads are organic to medical platoons/sections in maneuver battalions and designated CS units and medical companies of separate brigades, divisions, and echelons above division in the ASMB. Treatment squads (treatment teams) may be employed anywhere on the battlefield. When not engaged in ATM, these elements provide routine sick call services on an area basis. Echelon I care for units not having organic Echelon I capability is provided on an area basis by the organization responsible in the sector.

b. Echelon II. Care at this echelon is rendered at the clearing station (division or corps) and the forward surgical team (FST).

(1) At the clearing station the casualty is examined and his wounds and general status are evaluated to determine his treatment and evacuation precedences, as a single casualty among other casualties. Those patients who can RTD within 1 to 3 days are held for treatment. Emergency medical treatment (EMT) (including beginning resuscitation) is continued and, if necessary, additional emergency measures are instituted; but they do not go beyond the measures dictated by the immediate necessities. The division clearing station has blood replacement capability, limited x-ray and laboratory services, patient-holding capability, and emergency dental care. Clearing stations provide Echelon I CHS functions on an area basis to those units without organic medical elements.

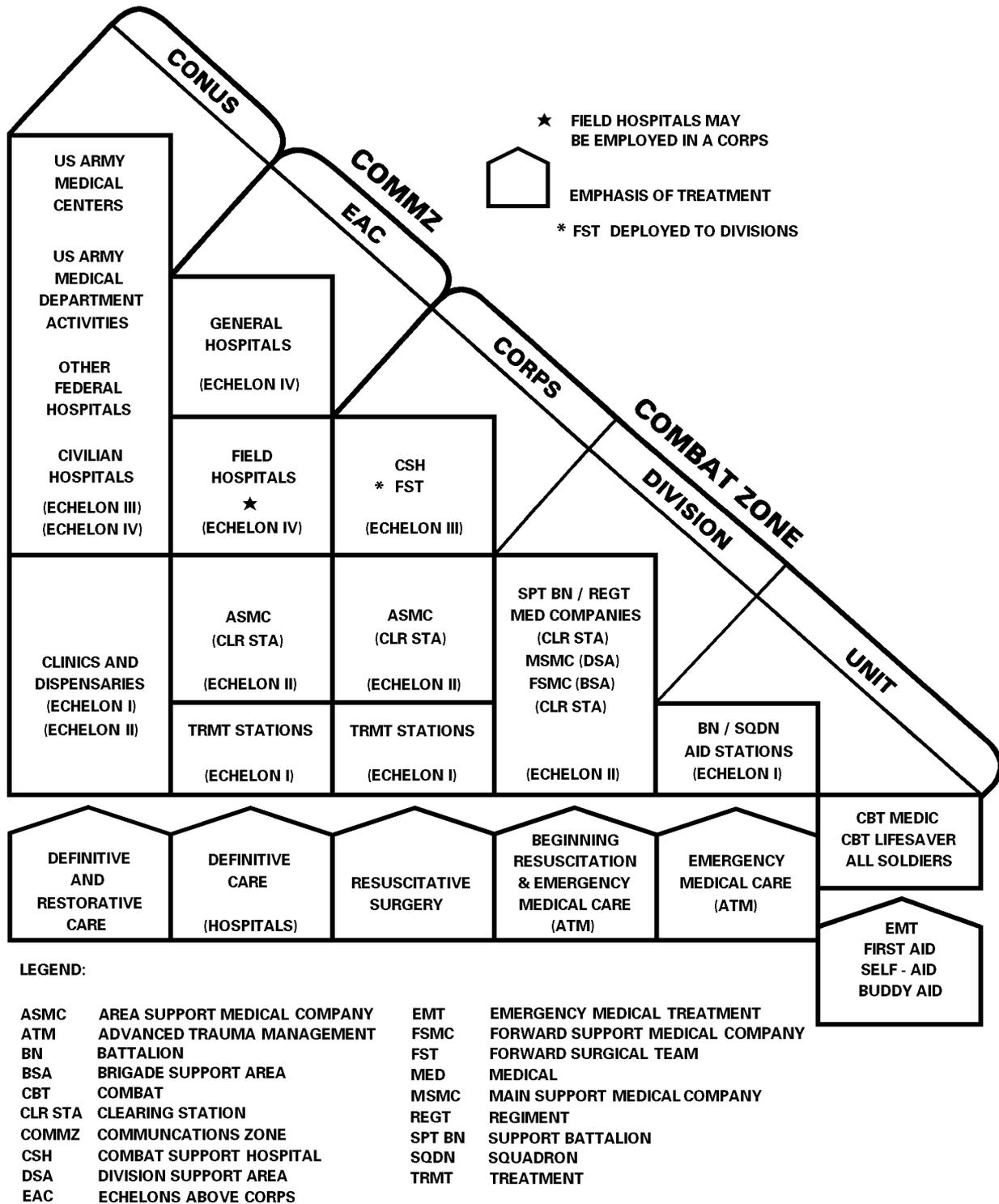


Figure 1-1. Echelons of combat health support.

FM 8-10-15

(2) The FST is a corps augmentation for divisional and nondivisional medical companies. The FST provides emergency/urgent initial surgery and nursing care after surgery for the critically wounded/injured patient until sufficiently stable for evacuation to a corps hospital. The FSTs not organic to divisions and regiments will be assigned to a medical brigade or group and normally attached to a corps hospital when not operationally employed. The FST will be further attached for support to a divisional/nondivisional medical unit.

(3) Division-level CHS also includes preventive medicine (PVNTMED) activities and combat stress control (CSC). These functions are performed typically by company-sized medical units organic to brigades, divisions, and ASMBs.

c. Echelon III. The first hospital facility, the combat support hospital (CSH), is located at this echelon. The CSH is staffed and equipped to provide resuscitation, initial wound surgery, and postoperative treatment. Patients are stabilized for continued evacuation or returned to duty. Those patients who are expected to RTD within the theater evacuation policy are regulated to a facility that has the capability for reconditioning and rehabilitating.

d. Echelon IV. At this echelon, the patient may be treated at the FH or the GH. These hospitals are staffed and equipped for general and specialized medical and surgical care. Those patients not expected to RTD within the theater evacuation policy are stabilized and evacuated to CONUS. At the FH, reconditioning and rehabilitating services are provided for those patients who will be RTD within the theater evacuation policy.

e. Echelon V. This echelon of care is provided in CONUS. Hospitalization is provided by DOD hospitals (military hospitals of the triservices) and Department of Veterans Affairs (DVA) hospitals. Under the National Disaster Medical System, patients overflowing DOD and DVA hospitals will be cared for in designated civilian hospitals.

1-3. Theater Hospital System

a. This system consists of three hospitals, a medical company, holding, and six medical/surgical teams. The corps hospital is the CSH. The two COMMZ hospitals are the FH and the GH. In addition to these hospitals, the medical company, holding provides a 1200-bed convalescent capability. For a detailed discussion on the Medical Force 2000 hospital system, refer to FM 8-10.

(1) *Combat support hospital.* This hospital's mission is to stabilize patients for further evacuation and to RTD those soldiers who fall within the corps evacuation policy. It is capable of handling all types of patients and will normally be employed in the corps area. The CSH provides hospitalization for up to 296 patients; surgical capacity with eight operating room (OR) tables; consultation services for patients referred from other medical treatment facilities (MTFs); pharmacy, clinical laboratory, blood banking, radiology, and nutrition care services; and physical therapy support for patients. For a detailed discussion on the CSH, refer to FM 8-10-14.

(2) *Field hospital.* This hospital is addressed in detail in Chapter 2 and other chapters of this publication.

1-4

(3) *General hospital.* This hospital is addressed in detail in Chapter 3 and other chapters of this publication.

(4) *Medical company, holding.* The mission of the medical company, holding is to provide a holding capability within the CZ for up to 1200 minimal care patients and minor medical treatment and rehabilitation for patients being held. This unit is assigned to a medical brigade. Its capabilities include—

- Providing five holding platoons, each capable of operating a holding facility with 240 supplemental cots for minimal care patients. The platoons have six holding squads (each having a capacity of 40 patients) and one treatment squad.

- Employing platoons to expand hospital minimal care ward facilities.

- Employing platoons, in conjunction with CSC assets, to hold battle fatigue casualties (BFCs).

- Employing platoons to augment United States Air Force (USAF) mobile aeromedical staging facilities (MASFs).

- Performing limited CHS on an area basis.

(5) *Surgical service teams.* The mission of these teams is to provide surgical augmentation to CZ and COMMZ hospitals. These teams are assigned to a MEDCOM or a medical brigade or group and further attached to subordinate hospitals. (For information on the basis of allocation for these teams, refer to FM 8-10.) These teams include—

- Medical team, head and neck surgery. This team provides initial and secondary maxillofacial and ear, nose, and throat (ENT) surgery.

- Medical team, neurosurgery. This team provides initial and secondary neurosurgery.

- Medical team, eye surgery. This team provides initial and secondary ophthalmologic surgery.

(6) *Medical service teams.* The mission of these medical service teams is to provide medical augmentation to CZ and COMMZ hospitals. (For information on the basis of allocation for these teams, refer to FM 8-10.) These teams include—

- Medical team, pathology. This team provides investigative pathology support.

- Medical team, renal dialysis. This team provides renal hemodialysis care for patients with acute renal failure and consultative services on an area basis.

- Medical team, infectious disease. This team provides infectious disease investigative and consultative services.

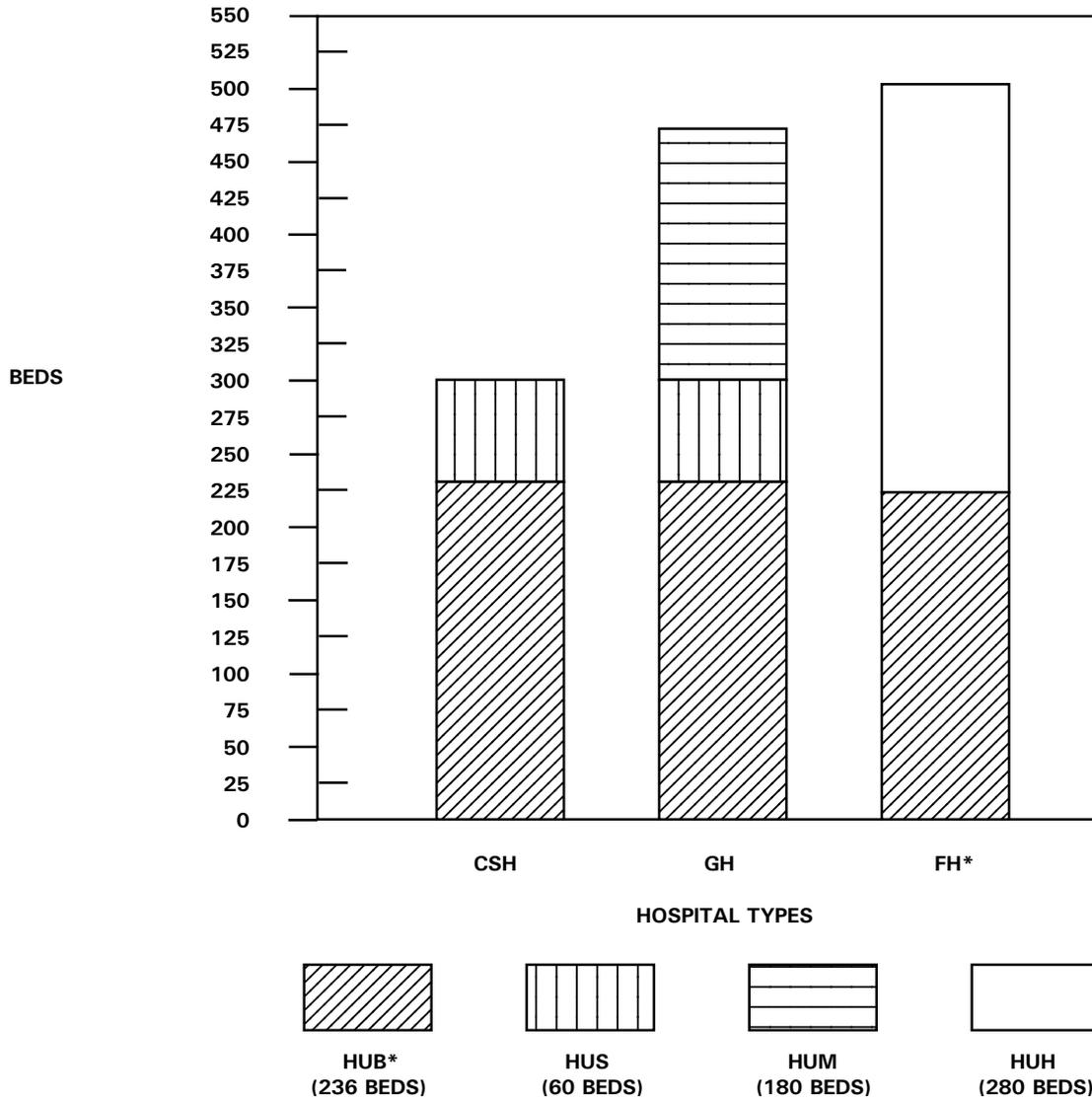
b. The CSH, FH, and GH are modular designed. They consist of a base component (hospital unit, base [HUB]) which is clinically similar in all the facilities. This unit is augmented by one or more mission-adaptive components to meet work load requirements. These separate hospital components promote the CHS planner's ability to task organize and reconstitute the hospital as operational needs dictate. These components are assigned separate TOE to facilitate training, cohesiveness, and response capabilities. These components (Figure 1-2) include the—

(1) *Hospital unit, base.* The HUB is the foundation for the hospital. It is an independent organization which includes all hospital services. Normally, it is employed with one or more mission-adaptive components but is capable of stand-alone operations. The capabilities of the HUB are—

- Hospitalization for up to 236 patients, consisting of 36 intensive, 140 intermediate, 40 minimal, and 20 neuropsychiatric (NP) care beds. Note Figure 1-2.
- Surgical capability for the CSH and GH is based on two OR modules, one surgical and the other orthopedic, which are staffed to provide a total of 72 OR table hours per day. Surgical capability for the FH is based on one OR module.
- Consultation services for outpatients referred from other MTFs.
- Unit-level CHS for organic personnel only.
- Pharmacy, clinical laboratory, blood banking, radiology, and nutrition care services.
- Physical therapy support to patients.
- Medical administrative and logistical services to support patient work loads.
- Dental treatment for staff and patients and oral surgery support for military personnel in the immediate area, plus patients referred by the area CHS units.
- Occupational therapy support.
- Attachment of specialty surgical teams.

(2) *Hospital unit, surgical (HUS).* The HUS provides an increased surgical capability to a HUB. It is organic to a CSH and a GH. As a component of the CSH or the GH, this unit provides—

- Hospitalization for up to 60 patients consisting of five wards providing intensive care nursing.
- Surgical capability based on two ORs for a surgical capacity of 72 OR table hours per day.
- Unit-level CHS, less dental, for organic personnel.



* ALTHOUGH THE HUB HAS 236 BEDS, WHEN IT IS USED AS THE BASE COMPONENT FOR THE FH, IT IS ONLY STAFFED TO PROVIDE HOSPITALIZATION FOR 224 PATIENTS. IN THE FH CONFIGURATION, THE HUB HAS TWO INTENSIVE CARE WARDs THAT PROVIDE CARE FOR UP TO 24 PATIENTS. BY CONTRAST, IN THE CSH AND GH CONFIGURATIONS, THE HUB HAS THREE INTENSIVE CARE WARDs THAT PROVIDE CARE FOR UP TO 36 PATIENTS. THIS IS THE REASON FOR THE 12-PATIENT DIFFERENCE IN THE FH CONFIGURATION.

Figure 1-2. Component hospital system.

FM 8-10-15

- Radiology augmentation services for up to 60 patients.
- Medical administrative services.

NOTE

When the HUB and the HUS are employed to form the GH, half of the OR tables are staffed for two 12-hour shifts with the other half only staffed for one 12-hour shift per day.

(3) *Hospital unit, medical (HUM)*. The HUM provides medical augmentation to a HUB. It is assigned to a GH. As a component of the GH, this unit provides—

- Hospitalization for up to 180 patients, consisting of nine wards providing intermediate care nursing.
- Consultation services for outpatients referred from other MTFs.
- Pharmacy, clinical laboratory, and radiology augmentation services for up to 180 patients.
- Physical and occupational therapy augmentation support.

(4) *Hospital unit, holding (HUH)*. The HUH provides hospitalization for patients returning to duty within the prescribed theater evacuation policy. It is assigned to a FH. As a component of the FH, this unit provides—

- Hospitalization for up to 280 patients, consisting of seven patient support sections providing convalescent care.
- Unit-level CHS, less dental, for organic personnel.
- Physical and occupational therapy support to patients.
- Medical administrative and logistical services.

1-4. Hospital Support Requirements

a. In deployment and sustainment of operations, these hospitals are dependent upon appropriate elements of the theater for—

- Personnel administrative services.

- Finance.
 - Mortuary affairs and legal services.
 - Transportation services (the FH is 20 percent mobile and the GH is 10 percent mobile with organic assets).
 - Bath and laundry services.
 - Security and enemy prisoner of war (EPW) security during processing and evacuation.
 - Transportation for discharged patients.
 - Transportation and reequipping (to include individual clothing and equipment, seasonal outer garments, and protection garments) for discharged patients.
 - Class I supplies (rations), to include the Medical B Rations required for patient feeding.
- b.* During deployment and sustainment of operations, engineer support is required for establishment or modification of the FH or GH site and to construct or modify waste disposal areas.
- c.* During sustainment of operations—
- Coordination with and assistance from veterinary service units may be required for zoonotic disease control and investigation; inspection of medical and nonmedical rations, to include suspected contaminated rations and disposition recommendations; inspection and procurement of bottled water for consumption by US forces; and animal bites.
 - Coordination with and assistance from PVNTMED units may be required for food facility inspection, vector control, water production and distribution, field sanitation, wet bulb globe temperatures, and control of medical and nonmedical waste.

1-5. Medical Evacuation and Medical Regulating

a. Definition.

(1) Medical evacuation is the timely, efficient movement and en route care provided by medical personnel of wounded, injured, and ill soldiers from the battlefield or other locations within the TO. Evacuation begins when medical personnel receive the injured or ill soldier and continues as far rearward as the patient's medical condition warrants or the tactical situation allows. The higher echelon is responsible for arranging for the evacuation of patients from the lower echelon of care.

(2) Medical regulating entails identifying the patients awaiting evacuation, locating the available beds, and coordinating the transportation means for movement. Careful control of patient evacuation to appropriate hospitals is necessary to—

FM 8-10-15

- Effect an even distribution of cases.
- Ensure adequate beds are available for current and anticipated needs.
- Route patients requiring specialized treatment to the appropriate MTF.

b. Theater Evacuation Policy.

(1) The theater evacuation policy is established by the Secretary of Defense with the advice of the Joint Chiefs of Staff and upon the recommendation of the theater commander. The policy establishes, in the number of days, the maximum period of noneffectiveness (hospitalization and convalescence) that patients may be held within the TO for treatment. This policy does not mean that a patient is held in the TO for the entire period of noneffectiveness. A patient who is not expected to be ready to RTD within the number of days established in the theater evacuation policy is evacuated to CONUS or some other safe haven. This is done providing that the treating physician determines that such evacuation will not aggravate the patient's disabilities or medical condition.

(2) To the degree that an increase in patients occur which is not planned for (due perhaps to an epidemic or heavy combat casualties), a temporary reduction in the policy may be necessary. This reduction is used to adjust the volume of patients to be held in the TO hospital system. A reduction in the evacuation policy increases the number of patients requiring evacuation out-of-theater, and it increases the requirement for evacuation assets. This action is necessary to relieve the congestion caused by the patient increases. A decrease in the theater evacuation policy decreases the hospitalization requirements.

(3) The time period established in the theater evacuation policy starts on the date the patient is admitted to the first hospital (CZ or COMMZ). The total time a patient is hospitalized in the TO (including transit time between MTFs) for a single, uninterrupted episode of illness or injury should not exceed the number of days stated in the theater evacuation policy. Though guided by the evacuation policy, the actual selection of a patient for evacuation is based on clinical judgement as to the patient's ability to tolerate and survive the movement to the next level of CHS.

1-6. Principles of Combat Health Support

a. Conformity. Conformity with the theater plan is the most fundamental element for effectively providing CHS. Only by participating in the development of this operation plan (OPLAN) can the medical planner ensure adequate CHS at the right time and at the right place.

b. Continuity. Combat health support must be continuous since an interruption of treatment may cause an increase in morbidity and mortality. Procedures are standardized at each organizational level to ensure that all required medical treatment is accomplished. No patient is evacuated any farther to the rear than his physical condition or the military situation requires. In the COMMZ, patients are not evacuated to the CONUS support base if they can be returned to duty within the provisions of the theater evacuation policy.

c. Control. Control of medical resources must rest with the medical commander. Combat health support staff officers must be proactive and keep their commanders apprised of the impact of future operations on CHS assets. The medical commander must ensure that the CHS system is responsive to the requirements of the theater. He must be able to tailor his CHS resources and direct them to focal points of demand throughout the AO. Since CHS resources are limited, it is essential that their control be retained at the highest CHS level consistent with the tactical situation.

d. Proximity. In the CZ, the location of CHS assets in support of combat operations is dictated by the tactical situation (mission, enemy, terrain, troops, and time available [METT-T] factors) and the availability of evacuation resources. In the COMMZ, the hospitals should be located to facilitate access to medical evacuation resources (Army, USAF, and Navy, if available), host-nation (HN) rehabilitation resources (if applicable), and command and control (C2) facilities.

e. Flexibility. A change in tactical plans or operations may require redistribution or relocation of medical resources. No more medical resources should be committed nor MTFs established than are required to support the expected patient densities.

f. Mobility. In the CZ, since contact with supported units must be maintained, CHS elements must have mobility comparable to that of the units they support. Mobility is measured by the extent to which a unit can move its personnel and equipment with organic transportation. When totally committed to patient care, a CHS unit can retain its limited mobility only by immediate patient evacuation. The mobility of the FH and the GH severely limits their ability to relocate assigned personnel and equipment. Transportation support organizations should recognize the relocation requirements for these facilities. The FH and the GH must have contingency plans to affect a move should one be required; they should routinely do those administrative measures that will enhance the facilities' ability to move. For example, all assigned personnel should be up-to-date on required immunizations; load plans are developed, maintained, and updated as necessary to ensure that all necessary equipment and supplies will be included in the move.

1-7. The Medical Threat and Medical Intelligence

a. The medical threat is derived from a variety of informational sources outside the military as well as through formal intelligence channels. In most cases, the incidence and exposure to endemic disease is greater in developing nations. The medical threat is a composite of all ongoing or potential enemy actions and environmental conditions that may render a soldier combat ineffective. The soldier's reduced effectiveness results from sustained wounds and disease and nonbattle injuries (DNBI). Prior to deployment, units should receive a medical threat briefing from PVNTMED personnel outlining the medical threat and appropriate countermeasures. Units should ensure that the field sanitation team is trained, has a copy of the medical threat brief and countermeasures, and has adequate supplies. The elements of the medical threat include, but are not limited to—

- Diseases endemic to the AO (arthropodborne, rodentborne, waterborne, foodborne, and respiratory diseases).
- Environmental factors (heat, cold, humidity, and significant elevations above sea level).

FM 8-10-15

- Battle injuries from conventional, directed-energy (DE), and nuclear, biological, and chemical (NBC) weapons.

b. In order to develop the CHS estimate and plan, the medical planner obtains updated medical intelligence through intelligence, PVNTMED, and other channels. Medical intelligence is the product resulting from the collection, evaluation, analysis, integration, and interpretation of all available general health and bioscientific information. In the normal course of duty, medical personnel at all echelons obtain medical intelligence information. Medical intelligence is concerned with one or more of the medical aspects of foreign nations or AOs and is significant to military planning. Such information should be reported quickly to the supporting intelligence element. Until medical information is appropriately processed (ordinarily on the national level by the Armed Forces Medical Intelligence Center [AFMIC] at Fort Detrick, Maryland), it is not considered to be technical intelligence.

c. For additional information on the medical threat and medical intelligence, refer to FM 8-10, FM 8-10-8, and FM 8-42. The medical planner must utilize the PVNTMED estimate to identify the impact of the medical threat on the deploying force. For information on medical threat countermeasures, contact the US Army Center for Health Promotion and Preventive Medicine (USACHPPM) and refer to FM 8-33, FM 21-10, and FM 21-10-1.

1-8. Planning for Combat Health Support

a. The emerging world situation has resulted in an evolution from a forward deployed army to one capable of projecting combat power worldwide. Our Army is becoming smaller and primarily CONUS-based. For the Army to accomplish the assigned mission, it must rely on its ability to mobilize, deploy, sustain, reconstitute, and redeploy a crisis response force and reinforcing forces, if required. It must be able to project power from CONUS or forward presence locations in response to requirements from the National Command Authorities. To meet the challenge, the AMEDD must be proactive in projecting CHS. Once the mission is assigned, the commander and his staff use the planning process to determine the most effective means to accomplish the mission. This process enables the commander to estimate, analyze, and determine the courses of action to be undertaken. These courses of action are designed to maximize the accomplishment of the mission.

b. Planning at the FH and the GH levels entails preparing plans for a variety of situations, such as—

- Activities to be conducted at the various defense readiness condition (DEFCON) postures.
- Hospital operations conducted in an NBC environment.
- Joint and multinational deployments.
- Relocation of the hospital complex, to include patient disposition.
- Contingency missions (such as humanitarian assistance or disaster relief).

- Mass casualty situations.
- Rear AO support.
- Reinforcement or reconstitution support for forward medical elements.
- Combating terrorism activities.

For a detailed discussion of the planning process for CHS, refer to the remainder of this manual and FM 8-55.

c. To be complete, CHS planning must consider all functional areas within the AMEDD. These functional areas are—

- Patient evacuation and medical regulating. Refer FMs 8-10-6 and 8-55.
- Hospitalization. In addition to this publication, refer to FMs 8-10-14 and 8-55.
- Combat health logistics/blood management. Refer to FMs 8-10-9 and 8-55.
- Medical laboratory services. Refer to FM 8-55.
- Dental services. Refer to FMs 8-10-19 and 8-55.
- Veterinary services. Refer to FMs 8-27 and 8-55.
- Preventive medicine services. Refer to FMs 8-55, 21-10, and 21-10-1.
- Combat stress control. Refer to FMs 8-51, 8-55 and 22-51.
- Area medical support. Refer to FMs 8-10-24 and 8-55.
- Command, control, communications, computers, and intelligence (C4I). In addition to this manual, refer to FMs 8-55 and 11-55.